REMARKS

In the present Amendment, new Claim 6 has been added. Section 112 support for Claim 6 is found, for example, at page 14, lines 13-17 of the specification. No new matter has been added, and entry of the Amendment is respectfully requested.

Upon entry of the Amendment, Claims 1-2 and 4-6 will be pending, of which Claims 4 and 5 are withdrawn from consideration.

At page 2 of the Office Action, Claims 1 and 2 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Sawada et al (U.S. 5,404,032) in view of Kuroda et al (U.S. 5,831,296).

Applicants submit that this rejection should be withdrawn because Sawada et al and Kuroda et al do not disclose or render obvious the presently claimed compound semiconductor epitaxial substrate, either alone or in combination.

The Examiner states that Sawada et al shows a compound semiconductor epitaxial substrate comprising an InGaAs layer as a strain channel layer, an AlGaAs layer as an electron supplying layer, and GaAs layers [2,22] laminated respectively in contact with the top and bottom surfaces of the strain channel layer.

However, GaAs layer [2] in Sawada et al laminated in contact with the bottom surface of the InGaAs strain channel layer is not provided with an electron supplying layer, rather with a buffer layer. Also, GaAs layer [22] in Sawada laminated in contact with the top surface of the InGaAs strain channel layer is a doped layer, and is not a non-doped GaAs layer according to the present invention.

Accordingly, the present claims are not taught or rendered obvious by Sawada et al.

Kuroda et al is relied upon as teaching that the electron mobility of InGaAs is about 8500 cm^2/Vs when the In content in the InGaAs is between 0 and 25% (see column 5, lines 5-14 of Kuroda et al). Kuroda et al does not make up for the deficiencies of Sawada et al.

Applicants disclose "[h]igh electron mobility which can be achieved for the first time in a strain InGaAs channel system on a GaAs substrate according to the present invention has a significant impact on the art, because such a high electron mobility has never been obtained except in a system in which an InGaAs layer is used as a channel layer and lattice-matched with an InP substrate, or alternatively in a system in which an InGaAs layer is used as a channel layer and lattice-matched with a buffer layer having almost the same lattice constant as that of InP formed by a metamorphic technology on a GaAs substrate. That is, the present invention has an commercially significant advantage of its applicability to the conventional device processing technology without making any modifications, because the present invention requires neither an InP substrate which is expensive and hard to deal with nor a special metamorphic buffer technology and because an electron supplying layer or buffer layer is basically the same as that of the conventional pHEMT." See, the paragraph bridging pages 24 and 25 of the specification.

In view of the above, reconsideration and withdrawal of the §103(a) rejection of Claims 1 and 2 based on Sawada et al in view of Kuroda et al are respectfully requested.

Applicants submit that Claim 6 is patentable over Sawada et al in view of Kuroda et al for at least the same reasons that Claims 1 and 2 are patentable over Sawada et al in view of Kuroda et al as discussed above.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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